

What Is Claimed Is:

1. A flow sensor comprising:
 - at least one heating resistor element situated on a chip;
 - a bridge circuit having a plurality of bridge resistor elements, the bridge resistor elements being situated on the chip; and
 - at least one of a voltage controller and a current controller for controlling a temperature of the heating resistor element.
2. The flow sensor according to claim 1, wherein the bridge circuit has four bridge resistor elements.
3. The flow sensor according to claim 1, wherein at least one of the bridge resistor elements is a trimmer resistor element.
4. The flow sensor according to claim 1, wherein the at least one of the voltage controller and current controller includes a differential amplifier.
5. The flow sensor according to claim 4, wherein an adjustment of the bridge resistor elements is implemented via an offset voltage of the differential amplifier.
6. The flow sensor according to claim 1, further comprising first and second control loops, a flow direction of a medium to be measured being detected by comparing output variables of the first and second control loops.
7. The flow sensor according to claim 1, wherein the flow sensor is used to measure an air mass drawn in by an internal combustion engine.